

A KEY TO THE GENERA OF BUTHIDAE (SCORPIONIDA)¹

Herbert L. Stahnke²

The family Buthidae is the largest and most widely distributed group of scorpions; 43 genera and over 560 species and subspecies are known. The principle characteristic of the family is the subtriangular sternum.³ Exterior and interior pedal spurs are present. These frequently have small lateral spurs. In many genera a tibial spur is present on the third and fourth, or only fourth, pair of legs. Three or five pair of lateral eyes and often a subaculear tooth or tubercle are present. The pedipalp femur ventral surface lacks trichobothria. The cheliceral movable finger is always forked; the inner dorsal margin has four denticles of which the second is generally the largest and the most proximal two are quite small. The female genital operculum is divided. The eggs are relatively large and rich in yolk. The book-lung lamellae are reticulate and the venom glands are plicate. All scorpions containing a highly toxic venom are found in this family. In general the buthids are cryptophiles and do not use their legs in a typical digging manner. The defensive stinging behavior consists of a quick flick of the aculeus followed by an attempt at a hasty retreat. The stinging behavior is seldom a deliberate threatening gesture.

The recognition of subfamilies in the Buthidae has been a subject of much disagreement. Previous attempts to recognize this category are unsatisfactory. A careful comparative study, involving both subjective and quantitative data, is necessary. Therefore, at this time

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²Poisonous Animals Research Laboratory, Arizona State University, Tempe, AZ 85281.

³For nomenclature see Stahnke, *Scorpion Nomenclature and Mensuration*. Entomological News, 81(12):297-316, Dec. 1970.

subfamilies will not be recognized and only a key to the known genera is presented. The number in parentheses after the genus type is an approximation of the number of species and subspecies.

1. Tibial spur only on legs III (4)
2. Tibial spur on legs III and IV (20)
3. No tibial spurs (8)
- 4(1). Always three trichobothria on external surface of pedipalp femur. Terga tri-keeled (fig. 1). No subaculear tooth. Two denticles on ventral surface of cheliceral fixed finger (fig. 2) *Buthiscus* Birula, 1905, (*Trichobuthus* Vachon, 1941)

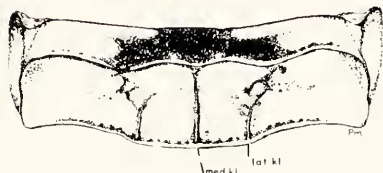


FIG. 1. Tri-keeled tergum: median and two lateral keels.



FIG. 2. Ventral view of chelicera; fixed finger with two denticles.

TYPE: *B. bicalcaratus* (1); DISTRIBUTION: Africa: Southern Tunisia; Algeria (Bene-Abbès, Biskra, Bou-Saada).

- 5(1). Trichobothrial number not as above. Terga mono- or tri-keeled; subaculear tooth or tubercle may or may not be present. Fixed finger may or may not be denticulate (6)
- 6(5). Vestigial tibial spur on leg IV (fig. 3). Vestigial median keel on terga V and VI. Non-oblique rows of granules on cutting edge of tibial finger and tarsus *Anomalobuthus* Kraepelin, 1900

TYPE: *A. rickmersi* Kraepelin, 1900 (1); DISTRIBUTION: USSR: Kazakhstan (Syr-Darya River Region near Dabusaly and Turkestan); Uzbekistan (Bukhara); Turkmenyva (Repetek).

- 7(5). Well developed tibial spur on leg IV. Granular rows on cutting edge of pedipalp tarsus imbricated (fig. 4). Two denticles on ventral edge of fixed cheliceral fingers. No keels on carapace. Terga mono-keeled *Babycurus* Karsch, 1886, (*Rhoptrurus* Pocock, 1890)

TYPE: *B. buttneri* Karsch, 1886 (19); DISTRIBUTION: Africa: Madagascar, Dondo, Somalia, Eritrea, Gabon (Ogowe R.), Atakpame of Togo and Kete Kratchi of Gold Coast, Togo to Cameroons.

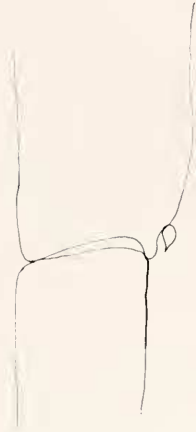


FIG. 3. Vestigial tibial spur (after Kraepelin).

FIG. 4. *Babycurus* pedipalp tarsus imbricated granular rows.

8(3). Exterior pedal spur of leg IV very long, stout, undivided but very hirsute; much larger than interior pedal spur (fig. 5). No subaculear tooth or tubercle. Terga tricostate. Tarsomere I of anterior legs depressed and thickly fringed with setae. *Plesiobuthus* Pocock, 1900

TYPE: *P. paradoxus* Pocock, 1900 (1); DISTRIBUTION: N. Baluchistan (Pakistan).

9(3). Pedal spurs not as above and extra spiniform process either lacking or not conspicuous. Subaculear protuberance may or may not be present. . . . (10)

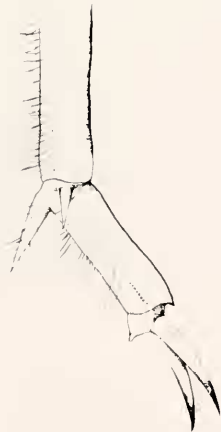


FIG. 5. Unequal pedal spurs of *Plesiobuthus*.

FIG. 6. Penta-keeled terga of *Microtityus*.

- 10(9). Cheliceral fixed finger without teeth on inferior surface. Terga distinctly three-keeled *Zabius* Thorell, 1894

TYPE: *Isometrus fuscus* Thorell, 1877 (2); DISTRIBUTION: S. America: Paraguay, Argentina (Cordoba, San Luis, Rio Negro, La Pampa, Jujuy).

- 11(9). Cheliceral fixed finger with one tooth on inferior surface. Terga mono- or penta-keeled (12)

- 12(11). Terga penta-keeled (fig. 6). Individuals small, 17-19.5 mm; pectinal teeth 8-11 *Microtityus* Kj-Waering

TYPE: *Microtityus rickyi* Kj-Waering (2); DISTRIBUTION: Teteron Bay, Trinidad (W.I.); Coast Mountain Range, Venezuela.

- 13(11). Terga mono-keeled (14)

- 14(13). Pedipalp tarsus with five or less distinct median oblique rows of granules plus a short apical and a compound basal row. No supernumerary lateral granules (figs. 7 & 9). A well developed subaculear tooth Tarsomere I not depressed and not fringed with setae *Isometrus* H & E. 1828

TYPE: *Scorpio europaeus* Linn, 1858 (14); DISTRIBUTION: Most widely distributed genus. Doubtful in U.S.; early records are mistaken determinations based on early instars of *Centruroides*. Taken in: Africa, Australia, Burma, Ceylon, Hawaii, India, Java, South America, South Sea Islands, West Indies.

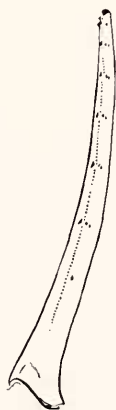


FIG. 7. *Isometrus* pedipalp tarsus non-imbricated granular row.

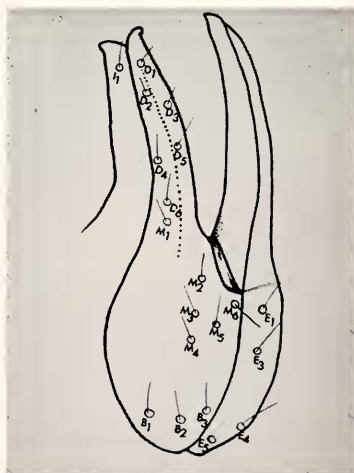


FIG. 8. Buthid trichobothrial pattern.

- 15(13). Pedipalp tarsus with six or more median rows of granules plus a short apical row and there may or may not be a compound basal row (16)

- 16(15). Ratio between distances of trichobothria D_2 to D_3 and D_1 to D_3 0.80 or over (fig. 8). Cauda of ♂ broader distally, equal or slightly longer than ♀. Sternite III of basillary area granular. Dorsal furrow of caudal segment V deep *Rhopalurus* Thorell, 1876

TYPE: *Rhopalurus laticauda* Thorell, 1876 (28); DISTRIBUTION: Cuba; South America: Argentina, Brazil, Colombia, Guiana, Venezuela; West Indies.

17(15). Ratio between distances of trichobothria D_2 to D_3 and D_1 to D_3 0.65 or under. Cauda of ♂ not distinctly broader distally and much longer than ♀. Sternite III of basilar area smooth or almost smooth. Dorsal furrow of caudal segment V shallow or absent. (18)

18(17). Pedipalp tarsus with not over 9 distinct median oblique granular rows plus a short apical row and with or without a compound basal row. In adult, supernumerary granules (fig. 9) flanking the oblique median granular rows *Centruroides* Marx, 1889, (*Centurus* H & E, 1828)

TYPE: *Buthus exilicauda* Wood, 1863 (67); DISTRIBUTION: Southern half of U. S. south to Argentina, Chile, West Indies and Galapagos Isl. with center of distribution in Mexico.

19(17). Pedipalp tarsus bearing not less than 14 distinct median oblique granular rows plus a short apical row but without a compound basal row. Supernumerary granules lacking *Tityus* C. L. Koch, 1836, (*Androcottus* Karsch, 1836), (*Phasus* Thorell, 1876)

TYPE: *Scorpio bahensis* Perty, 1830-34 (112); DISTRIBUTION: South America and West Indies. U. S. species doubtful.



FIG. 9. *Centruroides* pedipalp tarsus with interior lateral granules (ilg), exterior lateral granules (elg) and supernumerary granules (sg).

FIG. 10. *Anoplobuthus*. A. Carapace, B. Sternum, C. Part of pedipalp tarsus: imbricating granular rows.

- 20(2). Pectines without fulcra (22)
 21(2). Pectines with fulcra (24)
 22(20). Granules on cutting edge of pedipalp tarsus in nearly one continuous row. Basal row longer than both the preceding rows. Pectinal teeth: ♀ 16-17. ♀ caudal segment I width approximately equals length; carapace longer than pedipalp tarsus *Ananteris* Thorell, 1891

TYPE: *A. balzani* Thorell, 1891 (3); DISTRIBUTION: South America: Argentina, Brazil, Paraguay, Venezuela.

23(20). Granules on cutting edge of pedipalp tarsus in oblique rows. Pectinal teeth: ♀ 12-14. ♀ caudal segment I wider than long; carapace length approximately equals length of pedipalp tarsus..... *Ananteroides* Borelli, 1911

TYPE: *A. feae* Borelli, 1911 (1); DISTRIBUTION: Africa: Cacondo (Rio Cassine), Angola.

24(21). Cheliceral fixed finger without teeth on inferior surface.....(26)

25(21). Cheliceral fixed finger with one or two teeth on inferior surface.....(32)

26(24). Terga three-keeled. No granules on basal one-third of cutting edge of pedipalp tarsus; genital operculum length more than twice that of sternum. No subaculear protuberance. Movable cheliceral finger with only one ventral denticle. Pectinal teeth: 16-17..... *Nanobuthus* Pocock, 1895

TYPE: *N. andersoni* Pocock, 1895 (1); DISTRIBUTION: Africa: Sudan (Duroar, 60 mi. N. of Suakin).

27(24). Terga one- to three-keeled; granules entire length of cutting edge of pedipalp tarsus; genital operculum length not more than twice that of sternum.....(28)

28(27). Granular rows of pedipalp tarsus with an inner and outer flanking series. Pectinal teeth: ♂ over 15/15; ♀ over 10/10.....(30)

29(27). Granular rows of pedipalp tarsus with only an inner flanking series. Pectinal teeth: ♂ 15/15; ♀ 10/10..... *Karasbergia* Hewitt, 1914

TYPE: *K. menthueni* Hewitt, 1914 (1); DISTRIBUTION: S.W. Africa (Kuibis, Narubis Sud); Cape Prov. (NW Upington, Pofadder).

30(28). Carapace without keels; anterior margin concave (fig. 10A). Sternum somewhat subpentagonal, slightly longer than wide, anterior end not sharply pointed (fig. 10B). Tibial finger and tarsus with eleven oblique granular rows, some of which may be imbricated, each consisting of approximately seven small granules flanked externally by two large granules but internally by only one (fig. 10C). Pectinal teeth: 15. Size: 13.2 mm..... *Anoplobuthus*⁴ Caporiacco, 1932

TYPE: *A. parvus* Caporiacco, 1932 (1); DISTRIBUTION: Africa: Valley of Oued Tensift, Mauretania (Morocco).

31(28). Carapace without keels or with only vestige of posterior median keel. Sternum triangular and at least as long as wide. Tibial finger and tarsus with 9 to

⁴Figures and characteristics from original description. Type not available. From the shape of the sternum and the size, the type was about the second instar of an *Uroplectes* species. The granulation of the pedipalp fingers could be that of a young *Uroplectes*, or as Vachon suggests, the type is a juvenile *Butheoloides moroccanus* Hirst 1925, and that Caporiacco failed to observe weakly developed dentition of the inferior surface of the pedipalp fixed finger. The type locality would support this concept. The pedipalp finger granulation, however, would not. On the other hand, the pedipalp finger granulation of a second or third instar may be different from that of the adult, as is the case in the genus *Centruroides*.

13 oblique granular rows: if nine, they are flanked by two large external granules and only one internal; if 10-13, they are flanked by three large external granules and one or two internal ones. Pectinal teeth: 14-31
 *Uroplectes* Peters, 1861

TYPE: *U. ornatus* Peters, 1861 (50); DISTRIBUTION: Africa: Madagascar, Tanganyika Territory (Masai Steppes), Kenya, Somalia, Ethiopia, East side Lake Nyasa; Congo through Cameroon; South Africa; Southwest Africa; Indo-China.

32(25). Rows of indistinct or absent granules (fig. 11) on proximal half of cutting edge of tibial finger and tarsus. Adult not over 3 cm. (34)

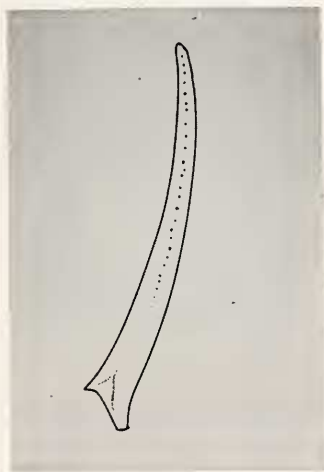


FIG. 11. *Microbuthus* pedipalp tarsus.

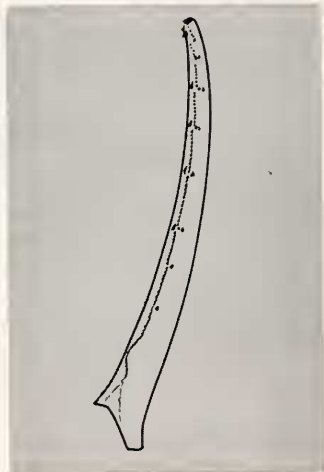


FIG. 12. *Butheolus* pedipalp tarsus.

33(25). Distinct rows of granules on the entire length of cutting edge of tibial finger and tarsus (fig. 12) (36)

34(32). Carapace very granulated (fig. 13); caudal segment V punctate (fig. 14); axis of telson vesicle pectinate or scalloped; tibial finger of pedipalp with basal lobe on cutting edge *Microbuthus* Kraepelin, 1898

TYPE: *M. pusillus* Kraepelin, 1898 (3); DISTRIBUTION: Arabia: Aden, Tadjura-Bai, Perim. Somaliland: Djibouti. Ethiopia (Abyssinia); Coast of Mauritania.

35(32). Smooth carapace. Caudal segment V smooth, not punctate; telson vesicle smooth. Pedipalp tibial finger without basal lobe on cutting edge
 *Lissothus* Vachon, 1948

TYPE: *L. bernardi* Vachon, 1948 (2); DISTRIBUTION: N. Africa: S.W. Libya (Fezzan: El Abiod). West Africa: Mauritania (Atar).

36(33). Carapace keelless and granulated (38)
 37(34). Carapace without above combination of characteristics (60)

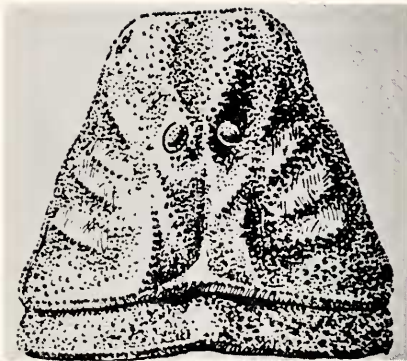


FIG. 13. *Microbuthus* carapace (after Vachon).



FIG. 14. Punctate caudal segments. (*Orthochirus*)

- 38(36). With distinct subaculear protuberance (40)
- 39(36). Without distinct subaculear protuberance (48)
- 40(38). Subaculear protuberance laterally compressed, triangular dentiform (42)
- 41(38). Subaculear protuberance not as above (44)
- 42(40). Externally at the base of the oblique granular rows of the pedipalp tarsus are two large granules which form a row of three (not including interior larger granule) with the basal granule of each row (fig. 4). Basal pectinal tooth of ♀ greatly enlarged *Pseudolychas* Kraepelin, 1912

TYPE: *Lychas pegleri* Purcell, 1901 (4); DISTRIBUTION: South Africa: Cape Province (near Port Elizabeth) (Umtata); Natal: Orange Free State; Southern Rhodesia on Umfuli River; Transvaal; Zululand.

- 43(40). Basal granule of oblique rows of tibial finger and tarsus flanked exteriorly and interiorly by only one lateral granule. Basal pectinal tooth of ♀ not enlarged *Lychas* C. L. Koch, 1845, (*Archiosometrus* Kraepelin, 1891)

TYPE: *L. scutilis* C. L. Koch, 1845 (50); DISTRIBUTION: Burma, China, India, Malaya, Philippines, Thailand; Australia; East, West and South Africa.

- 44(41). Terga mono-keeled (46)
- 45(41). Terga tri-keeled *Neobuthus* Hirst, 1911

TYPE: *N. berberensis* Hirst, 1911 (1); DISTRIBUTION: Somaliland.

- 46(44). Ventral surface of cauda without keels, smooth and punctate. Subaculear protuberance not denticulate *Butheloides* Hirst, 1925

TYPE: *B. moroccanus* Hirst, 1925 (3); DISTRIBUTION: Africa: Morocco (Amizmiz, Marrakech); Senegal (Joal); Málí (Mopti, Bandiagra).

- 47(44). Ventral surface of cauda with keels and granulated. Subaculear protuberance denticulate. *Odonturus* Karsch, 1878, (*Rhoptrurus* Karsch, 1886), (*Tityobuthus* Pocock, 1890), (*Pseudobuthus* Kraepelin, 1896)

TYPE: *O. dentatus* Karsch, 1879 (2); DISTRIBUTION: Africa: Madagascar; Tanganyika (Masai Steppe, Tanga, Morogora); Kenya (Mombasa, Kibwezi, Pokomonie, Punda Milia, Tana R., Taita).

- 48(39). Interocular area of carapace sloping ventrad (fig. 15 & 16. (50)



FIG. 15. *Orthochirus* dorsal aspect of carapace.

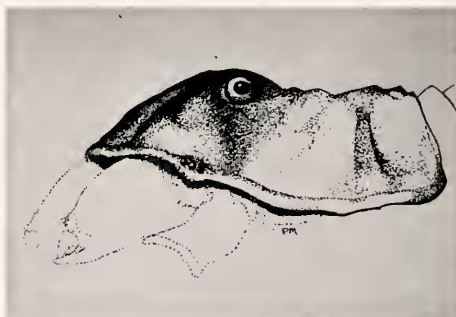


FIG. 16. Lateral view of *Orthochirus* carapace.

- 49(39). Interocular area of carapace horizontal. (52)
 50(48). Caudal segment V punctate (fig. 14).
 *Orthochirus* Karsch, 1891, (*Orthodactylus* Karsch, 1881)

TYPE: *Buthus melanurus* Kessler, 1876 (12); DISTRIBUTION: Asia: Israel, Iran (Seistan, Kerman); Syria; Socotra Isl.; N. Afghanistan; Persia; Bukhara; Arabia (Muscat, Djebel Mokattam); India; West Pakistan. Africa: Nubia; Libya (Ghadames); S. Algeria; Egypt; Somalia; Ethiopia. Europe: Sicily.

- 51(48). Caudal segment V not punctate *Butheolus* E. Simon, 1883

TYPE: *B. thalassinus* E. Simon, 1883 (3); DISTRIBUTION: Asia: Aden; Transcaspien-Gebiet (Bely-Bugor); Africa: Socotra Isl., Somalia (Tadjoura); Western and Northwestern India.

- 52(49). Inferior surface of cheliceral fixed finger with one tooth (54)
 53(49). Inferior surface of cheliceral fixed finger with two teeth (58)
 54(52). Terga tri-keeled. (56)
 55(52). Terga mono-keeled. *Isometroides* Keyserling, 1889

TYPE: *Isometrus vescus* Karsch, 1880 (2); DISTRIBUTION: Australia.

- 56(54). Pedipalp tarsus more than twice as long as manus exterior surface and slightly shorter than carapace. Manus narrower than patella. Carapace with distinct superciliary crests. *Psammobuthus* Birula, 1911

TYPE: *P. zarudnyi* Birula, 1911 (1); DISTRIBUTION: Russian Central Asia (Turkistan): Bank of Syr-Darja River between city of Skobelew (Margelan) and Namangan.

57(54). Pedipalp tarsus length about the same as manus external surface or carapace. Manus much wider than patella. Superciliary crests may or may not be present *Hemibuthus* Pocock, 1900

TYPE: *H. crassimanus* Pocock, 1900 (3); DISTRIBUTION: Africa: Dekan, Nilgiris; India.

58(53). Granular rows of pedipalp tarsus not imbricated or only slightly so. Three non-linear distal granules just proximad to terminal tooth of pedipalp tarsus *Parabuthus* Pocock, 1890, (*Heterobuthus* Kraepelin, 1891)

TYPE: *Androctonus liosoma* H & E, 1828 (51); DISTRIBUTION: Africa: East, South and Southwest.

59(53). All granular rows of pedipalp tarsus strongly imbricated *Grosphus* E. Simon, 1880

TYPE: *Scorpio madagascariensis* Gervais, 1880 (11); DISTRIBUTION: Madagascar.

60(37). Inferior surface of cheliceral fixed finger with one denticle (62)

61(37). Inferior surface of cheliceral fixed finger with two denticles (64)

62(60). Tarsomere II of legs 1, 2, and 3 very flattened, with a distinct dorsal comb *Liobuthus* Birula, 1898

TYPE: *L. kessleri* Birula, 1898 (1). DISTRIBUTION: Russian Central Asia (Turkistan).

63(60). Tarsomere II not as above (84)

64(61). Terga mono-keeled (66)

65(61). Terga tri- to penta-keeled (68)

66(64). Carapace without keels. Granular rows of pedipalp tarsus imbricated *Stenochirus* Karsch, 1891

TYPE: *S. sarasinorum* Karsch, 1891 (2); DISTRIBUTION: Ceylon; India.

67(64). Carapace with keels. Granular rows of pedipalp tarsus not imbricated *Charmus* Karsch, 1879; (*Heterocharmus* Pocock, 1892)

TYPE: *C. laneus* Karsch, 1879 (2); DISTRIBUTION: Ceylon; India.

68(65). Anterior terga penta-keeled *Leiurus* H & E, 1829

TYPE: *L. quinquestriatus* H & E, 1829 (1); DISTRIBUTION: Syria, Palestine, Yemen, Libya, Egypt.

69(65). Anterior terga not penta-keeled (70)

70(69). Second caudal segment dorsoventrally flattened, subcircular and much wider than other caudal segments *Apisthobuthus* Finnegan, 1932

TYPE: *A. pterygocercus* Finnegan, 1932 (1); Distribution: Arabia.

- 71(69). Second caudal segment not as above (72)
 72(71). *Trichobothrium* D_4 proximal to, or about the same level as D_5 ; or if D_4 distal to D_5 , then with three distal granules just proximad to terminal tooth to pedipalp tarsus; width of caudal segments increasing posteriorly; tarsomere II of legs 1, 2, 3 with a dorsal bristle comb (76)
 73(71). *Trichobothrium* D_4 distal to D_5 . With four distal granules just proximad to terminal tooth of pedipalp tarsus, width of caudal segments not increasing posteriorly, and tarsomere II of legs 1, 2, 3 without a dorsal comb (74)
 74(73). Tarsomere II soles with spines. Caudal segment IV and V without ten complete keels *Buthotus* Vachon, 1949, (*Dasyscorpio* Pallary, 1948)

TYPE: *Buthus judaicus* E. Simon, 1872 (27); DISTRIBUTION: Africa: S. Algeria, Morocco; Asia: Palestine, Mesopotamia, N. Arabia, S. Persia, Bukhara, Afghanistan, India.

- 75(73). Tarsal soles with bristles. All caudal segments with ten complete keels *Cicelius* Vachon, 1950

TYPE: *Buthacus exilis* Pallary, 1928 (1); DISTRIBUTION: Algeria: Ahaggar Mts., Tassili-n-Ajjer.

- 76(72). Inferior lateral keels of caudal segment V not uniformly granular; the granules increasing in size posteriorly and becoming denticulate or lobate distad. (78)
 77(72). Inferior lateral keels of caudal segment V evenly and finely granular throughout *Compsobuthus* Vachon, 1949

TYPE: *Buthus acutecarinatus* E. Simon, 1882 (3); DISTRIBUTION: Africa: Mauritania, Sahara, Nubia, Tombouctou; Asia: Palestine; India.

- 78(76). Superciliary crests smooth. Caudal segment IV and V without keels on dorsal surface *Buthacus* Birula, 1908

TYPE: *Buthus leptochelys* H & E, 1829 (12); DISTRIBUTION: N. and N. W. Africa; West Asia to Persia.

- 79(76). Superciliary crests granular. Dorsum of caudal segments IV and V with distinct or vestigial keels (80)

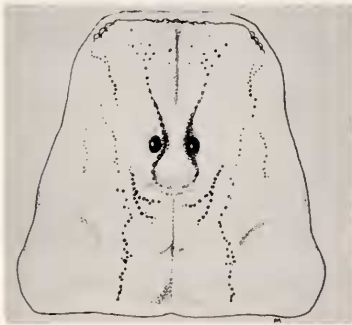


FIG. 17. *Androctonus* carapace.



FIG. 18. *Mesobuthus* carapace showing lyre-configuration.

- 80(79). Caudal segment IV with strongly developed dorsal keels. Width of ampulla less than width of distal end of segment V. Lateral central keels of the carapace not distinctly joining the central median keels (fig. 17).....
 *Androctonus* H & E, 1828, (*Prionurus* H & E, 1828)

TYPE: *Scorpio australis* Linn, 1758 (19); DISTRIBUTION: North Africa; Asia: Iran, Mesopotamia, Israel, India, Pakistan.

- 81(79). Caudal segment IV with weakly developed dorsal keels; segment V with rounded dorso-lateral areas which are essentially keelless. Width of ampulla not less than distal width of segment V. The lateral central and central median keels of the carapace usually join in lyre-form configuration (fig. 18)..... (82)

- 82(81). Small granules nearest the terminal tooth of pedipalp tarsus comprise a short apical row (3 or 4 granules) plus a large basal granule and flanked interiorly by two large granules (fig. 19). Five to seven very large granules arranged in transverse arc on proximal margins of caudal segments III and IV.....
 *Odontobuthus* Vachon, 1950

TYPE: *Buthus doriae* Thorell, 1877 (2); DISTRIBUTION: N. and Central Baluchistan, W. Pakistan, India, W. Persia (Mt. Doriae).



FIG. 19. Terminal portion of *Odontobuthus* pedipalp tarsus.

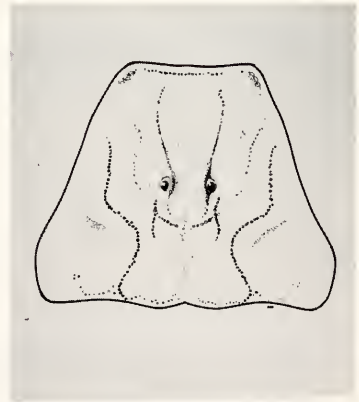


FIG. 20. *Buthus* carapace showing "H" formation.

- 83(82). Granules not as above..... (84)
 84(63 or 83). Three non-linear distal medium sized granules just proximad to terminal tooth of pedipalp tarsus. Central median keels of cephalothorax isolated and forming an H (fig. 20).....
 *Buthus*, Leach, 1815

TYPE: *B. occitanus* Amoreux, 1789 (21); DISTRIBUTION: Africa: Egypt, Ethiopia, Somalia, Libya; Palestine, Spain, Southern France.

- 85(83). Usually four non-linear distal granules just proximad to terminal tooth of pedipalp tarsus (fig. 21), or if with three non-linear distal granules, then without

exterior accessory granule on granular rows of pedipalp tarsus. Central median keels of carapace distinct and joining with posterior median keels (fig. 18)..... *Mesobuthus* Vachon, 1950



FIG. 21. *Mesobuthus*: Terminal portion of pedipalp tarsus.

TYPE: *Androctonus eupeus* C. L. Koch, 1839 (20); DISTRIBUTION: Asia: India Turkestan, Afghanistan, Persia, Caucasia, Transcaucasia, Baluchistan, Malacca, Mongolia, Bukhara.

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